8. $x = (y-4)^2 - 6$

$V(-6, 4)$

$y = 4$

$F(-5\frac{3}{4}, 4)$

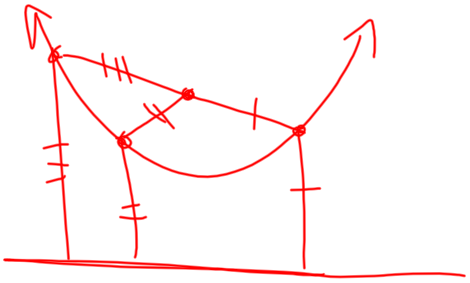
D $x = -6\frac{1}{4}$

$(-5\frac{3}{4}, 4\frac{1}{2})$

$(-5\frac{3}{4}, 3\frac{1}{2})$

$\frac{1}{4a}$

$\frac{1}{4}$



9. $x = \frac{1}{8}(y-2)^2 + 1$

$V(1,2)$

$\frac{1}{4a} = 2$

$8a = 1$

$a = \frac{1}{8}$

10. $y = \frac{1}{8}(x-4)^2 + 1$

11. $y = \frac{1}{16}(x-2)^2 - 5$

12. $9 = (x+2)^2 + (y-5)^2$

13. $(x-2)^2 + (y-4)^2 = 25$

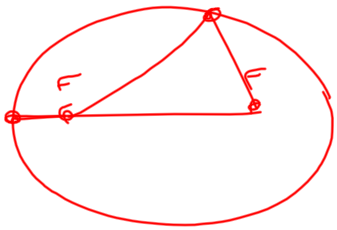
$(6-2)^2 + (7-4)^2 = r^2$

14. $a^2 = b^2 + c^2$

$\frac{(x-2)^2}{7} + \frac{(y-3)^2}{16} = 1$

$c = 3 \quad 2a = 8$

$a = 4$



15.

V $(-4,1)$

V $(-4,9)$

F $(-4, 5 \pm \sqrt{97})$

C $(-4,5)$

$a = 4$

$c = \sqrt{97}$

$b = 9$

$\sqrt{97}^2 = 4^2 + b^2$

$\frac{(y-5)^2}{16} - \frac{(x+4)^2}{81} = 1$

16.

$3x^2 - 24x + 2y^2 = -42$

$3(x^2 - 8x + 16) + 2(y^2) = -42 + 48$

$3(x-4)^2 + 2y^2 = 6$

$\frac{(x-4)^2}{2} + \frac{y^2}{3} = 1$

C(4,0) V(4, ±√3)

F(4, ±1)

17.

$\frac{(x-5)^2}{16} - \frac{(y+2)^2}{9} = 1$

C(5, -2)

a = 4

b = 3

c = 5

F(10, -2)

(0, -2)

18. (±4, 0)

19. (±1, 3)

(±√6, -2)

20.

21.